State of Wisconsin Dept. of Natural Resources

The Medical Waste Reporter

Announcements for Wisconsin's Medical Waste Generators

Reporting year 2003 *Issued January 2004*

Wisconsin Medical Facilities Win Awards

Wisconsin medical facilities earned three awards this year. **Aurora Health Care, West Allis Memorial Hospital and ACL Laboratories received the Governor's Award for Excellence in Environmental Performance in March 2003**. The award recognizes Aurora's regional efforts to eliminate over one ton of unnecessary mercury in their facilities. *(from **SHWEC April 2003 online newsletter).***

Riverview Hospital Association of Wisconsin Rapids earned the Hospitals for a Healthy Environment (H2E*) 2003 "Partner Award" for meeting their self-identified H2E goals.

SSM Healthcare, which includes St. Mary's Hospital Medical Center, Madison, and St. Clare Hospital, Baraboo, was awarded the Malcolm Baldridge National Quality Award in 2002. SSM is the first healthcare organization in the United States to earn this award.

* H2E is a collaborative effort of the Am. Hospital Assoc., the US Environmental Protection Agency, Health Care Without Harm, the Am. Nurses Assoc. and many others.

In this issue:

TAKE NOTE! Annual report form changes!

There are three significant changes to this year's annual report forms and process.

- We have changed our fee collection system. Please DO NOT SEND MONEY WITH THE FORMS. If you are required to file a report, we will send you an invoice in June.
- The filing fee has been increased to $55 per non-exempt report, effective 12/1/03.
- We have revised the questions to be answered under Lines O and P. Be sure to refer to the new questions in the instructions.

H2E Awards: Apply NOW!

Applications for the 2004 H2E awards are due on 1/30/04

Any hospital, clinic or nursing home with a medical waste reduction plan easily qualifies for one or more of the H2E awards. Award application forms are available at ***www.h2e-online.org***.

New H2E Partners in 2003

Wisconsin now has 22 H2E Partners representing dozens of hospitals and clinics. Medical facilities that joined H2E in 2003 include:

- Aurora BayCare Medical Center, Green Bay
- Aurora Sheboygan Memorial Medical Center, Sheboygan
- Family Health/La Clinica, Wautoma
- Froedtert Memorial Lutheran Hospital, Milwaukee
- Marshfield Clinic, Marshfield and 51 clinics
- Meriter Health Services, Madison
- Myrtle Werth Hospital, Menomonie
- Rice Medical Center, Stevens Point
- St. Vincent Hospital, Green Bay
- Wm. S. Middleton Memorial Veterans Hospital, Madison

Mercury →*Reduction*← News

Wisconsin Receives Grant for Hg Thermometer Collections

The US Environmental Protection Agency has awarded a grant to WDNR to enable health care facilities and communities to collect mercury thermometers from homes and schools.

The $11,000 grant will help support 30 to 40 collection events. $8000 is allocated for mercury disposal and $3000 for publicity. The grant may not be used for incentives (e.g., food, replacement thermometers) or for disposal of mercury items from medical facilities.

Persons holding thermometer collections between January 1 and June 30, 2004, must write to WDNR to reserve funds for publicity expenses. Actual publicity expenses will be reimbursed in mid-2004, first requested, first funded.

WDNR will arrange for pickup and disposal of the collected thermometers in July, using the state's hazardous waste contractor.

For more information or to reserve funds, contact Kurt Byfield, WDNR at 608-266-8805 (kurt.byfield@dnr.state.wi.us). WDNR will post more information on its website in January.

HOW TO CONTACT DNR STAFF:

Medical waste questions:
Barb Derflinger, Medical Waste Coordinator
Phone: (608) 267-3548 Fax: (608) 267-2768
Email: medical.waste@dnr.state.wi.us
Address: DNR WA/3, PO Box 7921
Madison, WI 53707-7921

Mercury questions:
Randy Case, Mercury Reduction Coordinator
Phone: (608) 267-7639 Fax: (608) 267-0496
Email: charles.case@dnr.state.wi.us
Address: DNR CO/8, PO Box 7921
Madison, WI 53707-7921

DNR Web site: www.dnr.state.wi.us

Hg Reduction Rule Update

DNR staff are drafting guidance for how to comply with wastewater rules about reducing mercury (Chapter NR 106, Wis. Adm. Code). Anyone who earns the H2E "Making Medicine Mercury Free Award" will essentially comply with the guidance. To get the jump on NR 106, go to ***www.h2e-online.org*** and click on "mercury."

Community Mercury Reduction Program Overview and Results

In 1998, WDNR and 18 of Wisconsin's largest municipalities began Community Mercury Reduction Programs to reduce and recycle mercury in healthcare facilities, dental offices, schools, HVAC contractors, dairy farms, auto scrap yards and households.

These programs collected and recycled a total of 13,200 pounds of mercury over the last five years. These represent the largest public collections of mercury-containing products in the United States to date.

1998 & 1999	5,100 pounds
2000 & 2001	6,600 pounds
2002	1,000 pounds
2003	500 pounds

Almost all the products collected were permanently replaced with non-mercury devices.

Mercury Disposal Options

Although grants for free mercury recycling ended in 2003, you can still recycle mercury. First contact your local Recycling Coordinator to find out if there is a permanent household hazardous waste collection program or periodic hazardous waste collections (often called "clean sweeps") in your community. If these do not exist, find a commercial mercury recycler by searching the Wisconsin Recycling Markets Directory at ***www.dnr.state.wi.us/org/aw/wm/Markets/*** or by looking in your yellow pages.

Alternatives for Disposing of Liquid Infectious Waste

If your facility generates liquid infectious waste, your disposal alternatives are incineration, steam disinfection (e.g., autoclaving, microwaving), chemical disinfection (e.g., products that disinfect and may solidify the waste) and discharge of liquid waste to the sewer system [see s. NR 526.11, Wis. Adm. Code].

Most hospitals don't have incinerators or on-site treatment facilities. Therefore they must send infectious waste off-site or decide between the two latter alternatives. Of the 3 options, **it may be best to discharge liquid infectious waste directly to the sanitary sewer, based on both economic and environmental reasons.**

Sewering liquid infectious waste is inexpensive after your initial installation of equipment. Both off-site waste treatment and chemical treatment, on the other hand, require ongoing purchase of a service or product.

When comparing alternatives, be sure to consider less obvious costs of chemical treatment, which may include:

- purchase of liquid containers and waste bags;
- labor to purchase, move, use and store the product, containers and bags;
- landfill tipping fees;
- record keeping for on-site treatment; and
- periodic tests on your treated waste, because it is up to you, the generator, to determine if a product actually disinfects your waste. (WDNR has no authority or facilities for testing products.)

We don't have space here to contrast the environmental pros and cons of commercial treatment methods, but do want you to be aware of the following aspects of chemical treatment:

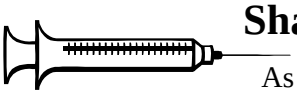
- You are adding a chemical and discarding it.
- If your container (e.g., suction canister) is not full, you either waste chemical by adding too much or risk not disinfecting it by adding too little.
- You are discarding containers, which wastes materials and may violate Wisconsin's recycling laws [s. 287.07, WI Stats].
- The chemical, container and waste take up valuable space in landfills.
- Eventually the chemical will either leach to groundwater or be removed and go to surface water via a wastewater treatment plant.

It is much better environmentally to send only the waste down the drain directly to the treatment plant, which is a facility designed to break down biological wastes. You may:

- Re-plumb your building so that the liquid waste goes directly down the drain.
- Collect the liquid in reusable containers and rinse them mechanically. (You might rinse them manually but that adds labor costs and raises worker protection issues.)
- Collect the liquid in disposable containers, rinse them and recycle them.

One Wisconsin hospital found that re-plumbing the operating rooms paid for itself in a short time (about 4 years) compared to incinerating the waste on-site. Payback may be even faster compared to using chemicals and sending waste off-site for treatment. (See the case study at ***www2.dnr.state.wi.us/org/caer/cea/publications/casestudy/casestudies/co082.htm*****)**

There are many in-line systems available for collecting liquid waste, so be sure to shop around. Also, check with your wastewater treatment plant operator. If you are unable to sewer your liquid waste, chemical disinfection may be the next best alternative.



Sharps Updates

As a postscript to the article above, please note that **products that disinfect and encapsulate sharps DO NOT meet Wisconsin's treatment standard**, i.e., that sharps must be disinfected and broken and unable to be reused, or must be incinerated.

DHFS has recently revised its recommendation about **disposing of razors in institutions** such as correctional facilities, hospitals and other health care settings. Although razors are presumed not to be infectious waste, in institutions we are trying to prevent sharps injuries, too. Therefore, **in institutions, razors should be put into sharps containers .**

PVC and Health Care

For many years, polyvinyl chloride (PVC) has been used widely in health care. To its credit, PVC is a wonderful alternative for glass, metal and other materials. However, PVC is now being linked with adverse health effects.

According to Health Care Without Harm, DEHP, a substance used to make PVC medical items flexible, is a toxic chemical. DEHP has caused harm to kidneys, livers, and male testes in animal studies. Phthalates leach from PVC into solutions, such as those in IV bags.

PVC itself isn't innocent either. PVC creates dioxin in both its production and destruction by incineration, and dioxins may cause cancer. Unburned PVC in landfills breaks down into chlorinated solvent-type products, which may migrate into water supplies.

If you reduce or eliminate the use of PVC, you reduce the toxicity of your waste. For alternatives to PVC, visit ***www.noharm.org*** and ***cold.aaa.dk/pvc/.***

NEW RESOURCES

Mercury Reduction

INFORM has posted information about mercury-free HVAC and building equipment, including controls, boilers, fire suppression systems, security systems, and water flow systems, and manufacturer's contact information for the same. It also has fact sheets about low mercury lamps and LED exit signs. ***www.informinc.org***

INFORM can also help you develop "specs" for mercury-free building systems. Please email Laura Sutherland at *sutherland@informinc.org*.

Health Care Pollution Prevention

Hospitals for a Healthy Environment (H2E) (for ALL medical facilities) continues to improve its web site. Visit ***www.h2e-online.org*** for outstanding resources and programs for reducing waste, an e-mail forum and free monthly teleconferences for those purchasing, using or disposing of products and waste from health care.

The **Sustainable Hospitals Project** lists vendors for health care products free of mercury, PVC and latex. See ***www.sustainablehospitals.org***.

The 3rd Annual "**Clean Med" conference** will be held in Philadelphia in April 2004. The agenda will include: building green hospitals, greener cleaners, safer products for workers, computers, and alternatives to incineration. For more information, visit ***www.cleanmed.org***

Laboratories

EPA has a program called Labs21 dedicated to improving the environmental performance of labs. See ***www.epa.gov/labs21century/*** .

Minnesota's Technical Assistance Program has developed a list of laboratory reagents that contain mercury, for which alternatives may or may not be available. See ***mntap.umn.edu/health/92-Mercury.htm*** .

The **Sustainable Hospitals Project** has a case study on replacing xylene in a histology laboratory, and contacting them directly may result in more information. Send an e-mail *shp@uml.edu.*

Published papers on xylene substitutes can be found by searching for "xylene substitutes" at ***www.ncbi.nlm.nih.gov/entrez/query.fcgi***

Construction & Demolition Waste

H2E has posted information and links about construction and remodeling in healthcare facilities. Go to ***www.h2e-online.org*** and click on Green Buildings.

The Deconstruction Institute provides educational materials, tools and techniques, networking, case studies, articles, facts about the environmental impacts of deconstructing. Visit ***www.deconstructioninstitute.com***

These announcements were prepared by the Wisconsin Department of Natural Resources, for distribution with publication PUBL-WA-809-03 (infectious waste annual report form packet) in January 2004. Comments and questions can be directed to Barb Derflinger, DNR Medical Waste Coordinator (see contact box on page 2).